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THE JOURNAL OF POLITICAL ECONOMY

JUNE—1897

MONETARY REFORM IN RUSSIA.

THE present efforts to place the monetary system of Russia upon a basis firmer than that which has hitherto existed ought to arouse an interest much greater than that ordinarily felt in such operations. The results of the attempt are likely to be extraordinarily important, for, if brought to a happy conclusion, the reform will affect the currency of an area and population much larger than have been involved in any similar European undertaking. Moreover, the peculiar obstacles to be encountered and the unfamiliar methods employed in overcoming them lend to the experiment an interest entirely its own. And, lastly, the influence of the new Russian measures upon some important phases of the bimetallic controversy is weighty.

Outside of Russia, it may pretty safely be said, the currency of Europe as a whole is now permanently on a gold basis. Germany is unlikely to recur to a silver policy. A disruption of the Latin Union would probably have little or no effect upon current conditions in the monetary world, inasmuch as none of the countries involved would think of altering their monetary systems in favor of bimetallism. England and the Scandinavian Union are doubtless firm in their allegiance to the existing *régime*. The Austrian monetary reform may be considered a success. Russia, alone among the principal European nations, has hitherto failed to make any adequate attempt at conforming her monetary system to the demands of the commercial world, or to relieve

her population of the inconveniences and losses arising from a fluctuating currency.

In current discussions this inaction has sometimes been ascribed to an unwillingness to adopt gold as the basis of the monetary system. Some have maintained that the actual recurrence by Russia to the use of silver in place of her irredeemable notes would once more restore the fabled ratio of $15\frac{1}{2} : 1$; thus rendering possible the adoption of an international bimetallic policy. Others have argued that an attempt to redeem the notes in gold would result in a rise in the price of that metal great enough to defeat the attempt at once. The ultimate repurchase by Russia of silver sufficient to redeem the notes and furnish a metallic currency has in some quarters been anticipated as an event likely to occur in the immediate future and to mark an epoch in the history of the silver market.¹

But the facts have disappointed all expectations of a rise in the quotation of silver, as well as those of a similar movement in the value of gold consequent upon the action of Russia. The reform has not been accompanied by the supposed results. It has apparently not advanced the cause of bimetallism by a hair's breadth, but has, if anything, retarded its supposed progress. The experiment has, however, added an instructive experience to contemporaneous monetary history, and though it presents numerous analogies to similar operations in other countries it has (as already remarked) many elements of individual interest.

The present paper attempts to review cursorily events leading up to the present measures of reform, and to explain the state of things which actually exists.

I.

The earlier moneys in use in Russia, as was the case with most other European states, were heterogeneous in character.

¹*E. g.*, Mr. Moreton Frewen, as late as January of the current year, stated in various journals that Russia was on the point of resuming specie payments in silver, and expressed the opinion that this would restore the ratio of $15\frac{1}{2} : 1$.

No monetary organization of any sort is met with prior to the beginning of the eighteenth century. Until the end of the fourteenth century, foreign coins were exclusively used, and the extreme looseness of the composition of the empire made it possible to employ, in the different provinces, coins varying widely in all respects. In the seventeenth century broadened commerce led to an influx of Dutch and German coin. Up to the time of Michael Romanof (1613-1645), coins were struck by private individuals. Romanof and Alexis Michaelovitch¹ (1657-1662) took over this function to the government, but the latter debased the coinage by issuing coins of high denominations in copper instead of in gold. All commodities rose enormously in price, and popular revolts were the result.

The first real system was introduced by Peter the Great. A ukase of 1701 ordered the coinage of 50, 25, and 10-copeck pieces in silver (100 copecks = 1 ruble). The fineness still remained indeterminate, but there was now some correspondence between market and face value. Three years later the coinage of the so-called ruble (silver) was ordered. The ukase of 1701 had also provided for the coinage of gold ducats, 93 parts fine (a piece of pure metal being said to be of the fineness of 96), at the rate of 118 to the pound. In 1711 the fineness for silver coins was fixed at $\frac{7}{9}\frac{0}{6}$. Of the pound $\frac{7}{9}\frac{0}{6}$ fine, 14 rubles 40 copecks were to be struck so that the silver ruble would possess a fine content of 4 solotnik $82\frac{2}{3}$ doli. The ratio of gold to silver was thus 1 : 13.879. In 1718, ducats of gold at a fineness of 75 were ordered coined at the rate of 100 (instead of 112) to the pound. The fine content was to be 36 doli, the ratio thus 1 : 12.963. Later, military needs led Peter to lower progress-

¹ See on this subject G. MICHAELOWITSCH, *Russlands Münzen*; ALEX. BRUCKNER, *Kupfergeldkrisen*; CHAUDOIR, *Aperçu sur les Monnaies Russes*. Also the rescripts of MAYER (*Münzwesen und Edelmetallproduktion Russlands*) and RAFFALOVICH, *Appendix VIII* to his translation of *Shaw's History of Currency (Histoire de la Monnaie*, pp. 359-65). See also for latest legislation (in available form) and an introductory sketch of the early history, *Bulletin de Statistique et de Législation Comparée*, vol. v. I, 1886, pp. 204-18, or HAUPT's copy of a part of the introductory sketch in *Arbitrages et Parités*, last edition, art. "Russia."

ively the fineness and content of the coins. A pound of copper was coined :

From 1700-1701	into 12 rubles 80 copecks ¹
From 1702-1703	" 15 " 40 "
From 1704-1718	" 20 " 0 "
From 1718-1722	" 40 " 0 "

Money finally sank in the market to one-tenth of its face value, but retirement of the copper was begun in 1730; and by 1757 much the larger part had been withdrawn and silver reappeared. No alteration in the system nominally existing was made until 1730, when the content and weight were so altered as to raise the ratio from 1 : 13.879 to 1 : 13.569, and in 1749 ducats were ordered coined at a fineness of $94\frac{2}{3}$ (0.986).² The coinage of "imperials" at $\frac{88}{96}$, weighing 3 solotnik 85 doli was inaugurated in 1755. Peter III adopted the fineness of $\frac{72}{96}$ for silver coin, and silver rubles were struck at the rate of 17 rubles $16\frac{2}{3}$ copecks to the pound, this being equivalent to a ratio of 1 : 11.845. Various other alterations followed, the principal of which occurred under Paul I, when (January 20, 1797) the fineness of 72 was displaced by that of $83\frac{1}{3}$, and the content of the ruble was fixed at 3 solotnik 3.969 doli, a ratio of 1 : 17.924. The measures passed in October of the same year, however, substituted for this content of the ruble that of 4 solotnik 21 doli. At the same time the fineness of the half imperials was raised from 88 to $94\frac{2}{3}$, a pound of gold being thus equivalent to 336 rubles 49 copecks—a ratio of 1 : 15. Platinum coins also were issued from 1828 to 1845. The new ratio persisted, though the content and fineness of the coins were sometimes altered, until 1839, when Emperor Nicholas, in order to bring the monetary system into some accord with the *régime* in use in most of the principal European countries, ordered that gold coins be henceforward allowed to pass at an agio of 3 per cent., and that they be so received at government offices. The ratio was thus practically lowered to 1 : 15.45. This ratio, although not in harmony

¹ MAYER, *Münzwesen und Edelmetallproduktion Russlands*, p. 10.

² The same as the Dutch "ducats."

with the French ratio of $1 : 15 \frac{1}{2}$, was sufficiently near it to overcome some of the inequalities between nominal and real value previously existing.

Further alterations in the prevailing system were suggested by a monetary commission which, after a session of thirteen years, made certain recommendations in 1844. No change, however, was made in the *régime* actually in existence, and as the defects in the old and imperfect currency began to grow more glaring, owing to the more rapid progress of other countries in monetary affairs, a new commission was, in 1859, established by the Department of Mines, its duty being that of recommending reforms. This commission finally proposed the following innovations:¹

(1) Increase of gold circulation by the coinage of pieces smaller than the half imperial.

(2) Definite fixation of the relation in value between gold and silver coin.

(3) Introduction of a regular token coinage.

(4) Change in the permissible variation of fineness and weight of the smaller subsidiary coin.

(5) Introduction of platinum coin.

(6) Various changes in the copper coinage.

(7) Equalization and systematization of the denominations.

It was explained in the report that, at such times as the price of silver stood higher than the ordinary quotations, a heavy export of Russian silver coin toward Persia and China was observable. A difference between the value of silver rubles in their coined form and as bar silver was also noted. From a pound of fine silver were coined 21 rubles $75 \frac{1}{2}$ copecks, yet the market price of the pound of fine silver $\frac{8}{9} \frac{4}{6}$ fine was 22–24 rubles. Moreover, inasmuch as the silver ruble had now a content of 405 doli, it exceeded its nominal value by $5 \frac{1}{2}$ copecks, thus stimulating their exportation. A reduction of the fineness to 72 was therefore recommended. This suggestion was acted

¹ See MAYER, *op. cit.*, p. 18, for summary, also MICHAELOWITSCH, *op. cit.*, for legislation.

upon. In 1860 the fineness was reduced 15 per cent., and silver subsidiary coins were ordered to be struck at $\frac{750}{1000}$. This measure nevertheless proved inadequate, and in 1866 the fineness was reduced to $\frac{500}{1000}$. The wish—expressed in many quarters—that a smaller unit corresponding to the French franc might be substituted for the ruble was not granted.

Just at this moment, the needs of the treasury and the resulting overissues of paper and depreciation of the state credit resulted in driving practically all gold and silver coin from free circulation (see section II). The so-called paper ruble sank to $\frac{1}{4}$ and great abuses were the result. A long series of adverse political events and the accompanying unfavorable commercial conditions, taken together with the low credit of the state, the absence of coin from the circulation, and largely also from the bank reserves, and the redundancy and depreciation of the notes, prevented any further action for many years. Not until 1885 was it thought expedient to introduce definite measures of reform. The problems confronting Russia included not only the restoration of the "parity" between paper and coin, but a radical transformation of the technical conditions for the manufacture of the latter, as well as a change in the ratio and a general renovation of the whole monetary system.

Having thus briefly examined the course of events down to 1885, it is now possible to consider the law of December 7 of that year¹ which took effect January 1, 1886, and upon which the present monetary system is based. This law retained the *silver* ruble as the monetary unit, dividing it into 100 copecks and assigning it a fine content of 4 solotnik 21 doli pure silver. Gold was also to be coined in denominations of 10 and 5 rubles, the fine content of these coins being respectively 2 solotnik 69.36 doli and 1 solotnik 34.68 doli. This was tantamount to a ratio of 15 $\frac{1}{2}$:1. It is evident that, had there been any intention of attempting to establish a "concurrent circulation," this first provision must have rendered the act nugatory at the outset.

¹For the text see *Bulletin de Statistique et de Législation Comparée*, vol. xix. p. 209 et seq.

No such intention, however, existed. It has already been noted that the real medium of exchange of the country was paper, and that little metallic money of any sort was to be found in actual circulation. This being the case, the sole object to be attained in establishing a relation between gold and silver was that of adopting a ratio such as would be most advantageous to Russian dealers on foreign markets. Inasmuch as the ratio of $15\frac{1}{2} : 1$ was that prevailing in France and the Latin Union, it seemed on the whole best suited to carry on foreign transactions.¹ The denominations employed in the new monetary system were substantially the same as in the old, save that the coinage of the so-called "Russian ducats" was suspended, and that of ten-ruble pieces was substituted. This left the standard gold and silver coins as follows :

Gold	Silver
10 rubles	1 ruble
5 rubles	50 copecks
	25 copecks

As will already have been observed, the fineness and weight of the early money had been stated in terms of the Russian pound weighing 96 solotniks (1 solotnik = $4\frac{1}{4}$ grams) each consisting of 96 doli. The fineness of Russian gold coin being expressed by the fraction $\frac{8}{9}\frac{8}{8}$ and that of the Russian silver being $\frac{8}{9}\frac{3}{8}\frac{1}{8}$, the reduction to the metric system had been tedious, and in foreign transactions nearly always resulted disadvantageously to the holder of Russian coin. One of the most noteworthy features of the new law was, therefore, its acceptance of the fineness of $\frac{9}{10}$ for gold and silver coin alike.² Careful regulations governing wear, tolerance, etc., and the mechanical conditions for the manufacture of coin were also prescribed.

It is unnecessary to go into greater detail in the study of this act. It was clearly no more than a transition measure, and was to remain of merely nominal effectiveness until new monetary conditions should prevail. Its main current importance lay in the

¹ Cf. on this point, *Journal de St. Pétersbourg*, January 5-17, 1886.

² *Bulletin de Statistique et de Législation Comparée*, loc. cit., art. ix.

evident desire to approximate as closely as possible to the condition of France and the Latin Union. These countries being on a gold basis, the new law could not be regarded in any other light than as the expression of a desire to place the Russian currency on the same footing.

No change has been made in the system established by the Act of 1886. The law went into immediate effect, and in 1891 it was reported that "the unification of the monetary system has been brought to a close by the suppression of the differences in monetary unit which still existed upon the confines of the empire."¹

II.

In order to comprehend thoroughly the difficulties to be encountered in reforming the Russian monetary system it will be necessary to outline briefly the history of the paper currency.

Paper money was first introduced in Russia in consequence of the financial needs of the government of Catherine II. In 1769, two banks, located at St. Petersburg and Moscow, were authorized to issue paper assignats to a sum not in excess of the "effective capital" of the banks, the state credit being pledged for the redemption of this paper.² The issue varied in amount from time to time, and was increased about 1770 to meet the needs of the war with Turkey. However the notes continued until 1786 to be guaranteed by a gold reserve and suffered a depreciation of but 1 per cent. or less. In 1786 the amount in circulation did not exceed 50 million rubles. During this year, financial necessities became more urgent, and the issue of notes was finally raised to 100 millions.³ Further, a serious modification in their character was introduced. They were no longer to depend for their value on a metallic reserve but solely on the state credit. By 1794 the issue had been increased, on one

¹ *Rapport du Ministre des Finances à S. M. l'Empereur sur le budget de l'empire pour l'exercice 1891*. See also *Économiste Russe*, St. Petersburg, January 1-13, 1891, p. 92 et seq.

² *Annali di Statistica*, Serie 2^a, vol. xxiv. (Rome, 1881), "Il corso forzoso in Russia,"

p. 36.

³ *Ibid.*, p. 42.

ground or another, to 124 millions.¹ A decrease in value had naturally taken place simultaneously with the change in the nature of the notes. In 1787 they were quoted at an agio of 3 per cent. This discount rose in 1794 to 41; and in 1796, at the death of Catherine II, the notes then amounting in all to about 157 million, it reached 46. Measures taken by Paul I, in 1797, looking to the ultimate redemption of the notes, reduced it to 26, but this better quotation was not long maintained. Unfavorable economic conditions and the adverse political situation tended to depress the price of the paper ruble, while the needs of the treasury seemed to compel an increase of the quantity in circulation. In consequence of the war against France and the campaign in Turkey, the issue was raised in 1810 to 577 million rubles.² In December 1810, the silver ruble was quoted at 401 in assignats.

During the period 1812–1817, various governmental measures attempted to regulate the volume and value of the notes. Nevertheless they were steadily increased in volume reaching an aggregate of 836 millions in 1817, although their value did not sink very seriously below its lowest level for the preceding period. It continued in fact at a point slightly above 25 per cent. (measured in silver). A new era opened in 1817. The ukase of April 16 suspended the issue of assignats. Retirement was begun and proceeded steadily. By 1823 the volume of notes in circulation had been reduced to 595.7 millions, but the quotation was not materially higher, amounting in the last-mentioned year only to 26 $\frac{2}{5}$ (in silver). The sound policy, however, was persisted in, and under the finance minister Cancrin, rapid progress was made in bringing back the notes toward par, in reducing the redundancy, and in restoring coin to the circulation. Many measures of reform were introduced, and the work of reorganizing the finances was assisted by considerable industrial and commercial progress. The final measure in the series of enactments intended for the rehabilitation of the notes was

¹ See KULOMSKIN, *The Assignats during the Reign of Catherine II*.

² *Annali di Statistica*, *loc. cit.*, p. 52.

that of June 1, 1843, which provided for the substitution of "credit notes" for the assignats. The new notes were to be secured by silver deposited in the so-called "Bank of Commerce," and "notes of deposit," possessed of the same power as legal money, might be obtained by anyone willing to deposit silver in exchange. These measures had the desired effect in restoring confidence. The paper which, as late as 1839, had exchanged for silver at the rate of 3.46, despite all preceding attempts to raise its value,¹ was soon quoted at a much better figure. Conversion proceeded with encouraging speed, and by 1848 only 15 million assignats remained in circulation. The notes now stood practically at par, and even in London they were quoted at 95.7 copecks.²

These more favorable conditions continued to exist until 1853 when the political outlook again became dark. In that year war needs led to large issues—illegal if judged by the new banking laws which had done so much to bring about a sounder situation. The period 1853–1860 was marked by constant increase in the circulation, decrease in the deposits constituting the metallic reserve, and suspension of redemption. Redemption was not at first openly withheld, but was discouraged,³ and finally in 1857 was refused.⁴ In the meantime the note issue had risen from 333.4 million rubles (in 1853) to 735 million rubles (in 1857), while the reserve fell from 161.3 million to 141 million rubles.

In 1860 the condition of the currency had become so bad that radical measures were seen to be a necessity. It was decided to place the note issues as well as the general credit system of the country upon a new basis, and to this end the creation of a state bank was authorized by the emperor (May 31, 1860). The bank was to go into operation June 3, 1862, and was to have a

¹ *Annali di Statistica*, loc. cit., p. 131.

² *Ibid.*, p. 144.

³ *Ibid.*, p. 154.

⁴ On this curious point compare WAGNER, *Russische Papierwährung* (Riga, 1868), p. 123. "Bis zum Jahre 1854 war das Russische Creditbillet strict einlösbar auf Verlangen des Inhabers. Im Laufe dieses Jahres scheint aber die baare Einlösung stillschweigend und vermüthlich nicht auf einmal sondern allmählich eingestellt zu sein."

capital of 15 million rubles. Its principal functions were to be those of assisting the state credit and taking charge of the currency. It was also to perform a general business. There can be no doubt that this step was one of first-class importance. It was the first attempt at conducting the state business in a systematic way and marked an entirely new financial era. "Das Jahr 1861," says Professor Wagner,¹ "bildet für Russlands innere Entwicklung einen Epochenmachenden Abschnitt."

At the moment of its creation, the bank had liabilities of 705 million rubles—that amount being the volume of notes in circulation. Its assets consisted of the redemption fund (specie) amounting to 92.5 million rubles, and a debt of the treasury equal to 612.5 million rubles.² Shortly after the government issued the obligations known as "billets metalliques 4 per cent. de la Banque," one part of which was to serve for the retirement of notes, and the other for the diminution of the treasury debt. In order still further to augment the redemption fund, a loan of 15 million pounds sterling was floated during 1862, and with these added resources the bank was ordered to resume specie payments. The attempt proved a failure, the fund, which amounted to only one-fourth of the notes, being quite inadequate. The situation was aggravated by the heavy loans which the bank was obliged to make to the government. These grew even heavier during the year succeeding 1870 and the period of the Turkish war.³ In order to meet these new demands, the bank was allowed to increase its note issue. A reduction was unexpectedly found possible in 1879, when the floating debt was consolidated and 100 millions of notes were withdrawn. This left exactly 1100 millions still in circulation. No further improvement was attempted during the next two years. Late in 1880 better political prospects encouraged further steps of reform. Finally, the ukase⁴ of January 1, 1881, ordered the state treasurer to pay

¹ *Op. cit.*, p. 116.

² Compare SAY, *Dictionnaire des Finances*, vol. i. p. 347.

³ *Ibid.*

⁴ For text see *Bulletin de Statistique et de Législation Comparée*, 1881, vol. i. p. 60. Also *Bulletin Russe des Lois*, January 2 and 3, 1881.

"without delay to the Bank of Russia such sum as may be necessary in order to reduce to 400 million rubles the debt resulting from the expenses incurred by it for account of the state; to amortise this debt, that is to say 400 million rubles, by annual installments, beginning with the year 1881, and at the rate of 50 million rubles payable each year by the treasury to the bank; to destroy the notes according and in proportion to their accumulation in the treasury of the bank, conformably to the needs of the fiduciary circulation." It has been already seen that the outstanding notes amounted to 1100 millions in 1879, at the close of the operations of consolidation and withdrawal. Certain minor independent operations had still further increased this sum. At the opening of 1881 it stood in the neighborhood of 1122 millions. Thus in order to reduce the surplus debt to 400 millions an immediate payment of only about 17 millions was necessary.¹ The payment of 50 millions of specie per annum for the amortisation of the debt proved too heavy a burden. Consequently it was provided by the ukase of June 8, 1884, that the annual payments, instead of being made in gold or silver, might be liquidated in 5 per cent. gold bearing *rentes*, or in 5 per cent. currency *rentes*, it being understood that these *rentes* were to be taken by the bank only at market value.

Under this new regulation the treasury paid to the bank during the years 1881-1889 (inclusive) 243,471,445 rubles, partly in specie, partly in *rentes* (which were at once negotiated), and 173,528,555 rubles in 5 per cent. *rentes*, which were not negotiated but held among the assets of the bank.² From the proceeds of the 243,471,445 rubles already mentioned, a total of 87 millions in credit rubles was destroyed.³ As we shall later see, it was then considered advisable to cease the contraction of the currency, and the remainder of the notes in hand amounting to some 63,736,851 rubles were transferred from the account of "temporary issues" to that of "notes guaranteed by redemption

¹ It will be remembered that a part of the original capital of the bank was the debt of 612.5 millions due from the treasury. This of course was to remain.

² *Bulletin Russe des Lois*, December 11 [23], 1894, No. 202.

³ *Ibid.*

funds,"¹ and this fund was strengthened by transferring to it 40 million rubles in gold from the ordinary commercial balance of the bank. The remainder of the 243,471,445 rubles, or 92,734,591 rubles, remained unprovided for, and was held by the bank under the title of "temporary issues." This sum the bank was, shortly after the conclusion of the operations just detailed, ordered to hold at the disposal of the treasury to meet the expenses connected with the construction of the new Siberian railway (ukase of December 10, 1892). It was directed that the sum should, if necessary, be returned to the treasury as a new loan in installments not exceeding 40 millions of rubles per annum. Economic conditions proved exceptionally favorable and it was not found necessary to have recourse to this form of loan. It was, however, deemed inadvisable to contract the currency by the destruction of such a mass of notes. For reasons which will demand consideration at a later point, it was believed that the currency should be expanded rather than decreased in amount. The whole operation was therefore brought to a conclusion by a method different from that originally intended. The ukase² of December 9, 1894, ordered the minister of the treasury:

(1) To carry to the account of notes *permanently issued* and guaranteed by reserve funds the 266,263,146 rubles which appear among the liabilities of the Bank of Russia under the rubric "commercial operations" as emitted temporarily and which have been in circulation since 1878.

(2) To annul the 5 per cent. *rentes* returned to the Bank of Russia as the equivalent of the notes mentioned in (1) and which have not yet been realized upon, their value figuring up to the present time in the assets of the bank to the extent of 173,528,555 rubles.

(3) To liquidate the 92,734,591 rubles due from the imperial treasury to the Bank of Russia (notes specified in (1)), and to transfer from the reserve proper of the Bank of Russia 65,433,691.07 rubles in gold, which form the equivalent, at the purchase price, of the 92,734,591 rubles above mentioned.

¹ This was ordered by the ukase of July 10, 1887. (See *Bulletin Russe des Lois*, for corresponding date.)

² See *Bulletin Russe des Lois*, Dec. 11 [23], 1894, No. 202.

With this brief survey, we may leave the immediate history of the paper currency. Nothing has been said of the various temporary emissions (guaranteed by gold) made within recent years. These were necessitated by fortuitous circumstances and were quite independent of the management of the paper currency as a whole.¹

III.

In making a brief survey of the financial condition of Russia, preliminary to considering the history of the recent movement which has culminated in the attempt to place the currency upon the gold basis, it is impracticable to give more than the barest outline. Until comparatively recent years Russian financial affairs have been administered with a secrecy unknown in other modern states, where the policy of fostering confidence by great openness in the conduct of public business has generally obtained. A Russian budget was published for the first time in 1862. In that year, a special committee was appointed for the reorganization of the finances and a new minister, Count Reutern, was named on January 23. Financial prospects were gloomy. The Crimean War had left behind an immense burden of debt and of irredeemable paper, and the state credit was low. It seemed probable that large government expenditures in Poland would be necessary, and it was perceived, at this early date, that a repurchase of the railways of the empire must be effected, for their exploitation by foreign capital was considered injurious economically and politically.

Owing to these various adverse circumstances and the lowness of the development of the country's resources, effort to introduce a new order of things was for some time ineffectual.

¹The issues referred to were necessitated by the inelasticity of the currency. Thus, in 1888, 30 millions (guaranteed by gold) were issued to move the crops and were retired in November and December of the same year. Opposite causes (bad harvests, consequent high prices and necessary exports to famine-stricken provinces) led to an extraordinary issue of 75 millions in the autumn of 1891. This again was guaranteed by an equal reserve of gold. In 1892, 75 millions additional were similarly issued. They were retired in 1894.

Small exports of cereals and of raw materials in general—Russia's chief products—and a constant tendency to consume more than was produced, the difference between consumption and production being made up by loans, were the most general features of the economic situation during the years immediately succeeding 1860.¹ As already seen, no progress toward obtaining a better basis for the currency was made. Only one measure of Reutern's administration demands attention here. This was the imperial decree of November 22, 1876, passed in accordance with the suggestion of the finance minister, and directing the collection of customs in gold. For some time the revenue from customs had been on the decline, owing to the depreciation of the notes. The prospect of a decreasing income was not to be borne at a time when revenue was already inadequate. The new edict therefore ordered, (1) that customs taxes be payable in gold; (2) that duties not exceeding 5 rubles 15 copecks might be paid in silver. They were also to be payable in notes on condition that, in this case, their amount be doubled.²

This of course was equivalent to recognizing a depreciation of 50 per cent. in the value of the notes notwithstanding the fact that at the time of the decree they were constantly received

¹ From *Bulletin Russe de Statistique Financière*, 1895, vol. i. pp. 208 *et seq.*

² For text see *Bulletin de Statistique et de Législation Comparée*, 1887, vol. i. p. 105.

Year	General imports into Russia	General exports from Russia	Year	General imports into Russia	General exports from Russia
1871.....	307.3	307.9	1883.....	347.5	395.7
1872.....	369.5	377.7	1884.....	339.1	372.6
1873.....	372.1	306.1	1885.....	276.2	341.6
1874.....	410.1	375.6	1886.....	259.7	297.4
1875.....	457.3	328.9	1887.....	223.8	348.8
1876.....	386.5	324.2	1888.....	223.7	460.0
1877.....	216.9	356.7	1889.....	284.9	505.2
1878.....	379.4	393.8	1890.....	293.8	508.6
1879.....	370.8	396.0	1891.....	250.5	486.4
1880.....	407.2	326.0	1892.....	252.0	308.7
1881.....	340.4	333.0	1893.....	293.5	400.7
1882.....	357.2	389.4	1894.....

In millions of rubles, gold.

by the population at a discount of about 25 per cent. The law in fact practically constituted an indirect increase in the customs. This, however, was not its most important feature from an economic point of view. The fact that although the monetary standard of Russia was nominally silver, the administration had seen fit to measure its dues in gold was far more noteworthy. Coming as it did so soon after the monetary action of various countries from 1873–1876, it indicated a distrust of silver and a wish to depart from the use of that metal as a monetary standard, which would subsequently be of moment when the opportunity for monetary reform should arise.

Financially, the measure was abortive and Reutern asked for his dismissal. Neither of his successors¹ obtained better results. The currency continued in bad condition and was not decreased in amount as had been promised. Meantime bad harvests in 1880, and a consequent unfavorable balance of trade and exchange, made reform practically impossible. There was little prospect of improvement until Herr Bunge undertook the financial ministry with a new programme. The debt was to be refunded, economy introduced, a credit system developed, the notes redeemed and the currency system improved; the two latter being the principal features of the policy.²

Circumstances were unpropitious. The notes were quoted lower in 1883 than ever before, and, although a slight improvement was visible during the two years following, it was not maintained. 1886–1889 was a period of phenomenally low quotations. Heavy expenditures for railways and the army in 1883 necessitated new loans. The price of wheat was lower than anticipated and exports scarcely increased, while political prospects were unusually bad in Afghanistan and Bulgaria. Nevertheless, some preliminary measures of reorganization were actually taken, while the fact that a sounder policy was at least attempted, and that some legislative measures for placing the

¹ Grieg and Abaza.

² It was only through the other measures, however, that the latter two reforms were to be attempted. The establishment of a sound basis for reform became a fixed policy from this time on.

monetary system on a new basis had been introduced, tended strongly to raise public credit and assist improvement.

Conversion of the debt and repurchase of railways were first seriously undertaken by Wiesnigradsky who succeeded Bunge in 1887. The most important feature of this minister's administration, both as regarded general economic policy and the reformation of the monetary system, was the cessation of the deficit. During his administration a surplus constantly existed. It amounted in 1888 to 53, in 1889 to 65, in 1890 to 60, in 1891 to 13, in 1892 to 57, and in 1893 to 93 millions of rubles.¹ The public debt had amounted in 1881 to 1242.6 million rubles coin and 1559.5 million rubles credit, and, although this amount had increased by January 1, 1895, to some 5589 millions paper, owing to the purchase of old railways, construction of new ones, etc., the interest charge had been so reduced through the refunding operations and the improvement in public credit which permitted the floating of new loans at reduced rates of interest that it amounted in 1895 to only 257.3 millions as against 237.8 millions in 1881, or an increase of 1.12 per cent. of the increase in the debt. From 651 millions in 1881, the income rose to 1025 millions in 1893, a rise of 57 per cent.² Four per cent. obligations which had stood at 75 in 1880 were quoted in 1894 at 95.³

The various measures which were producing so advantageous a change in the financial condition of the empire, and were thereby preparing the way for the return to a sound monetary policy, at the same time tended to bring about a better quotation of the credit ruble. Although the so-called gold ruble had been quoted in 1887 at 1.80 in paper, it averaged but 1.53 in 1893—an important improvement. Contemporaneously with the notably better condition of the finances, economic and industrial progress was becoming much more marked. The opening of large new wheat areas and the introduction of better and more

¹ See *Règlement Définitif du Budget pour l'Exercice*, 1887 (St. Petersburg, 1888). Also same document for following years.

² *Ibid.*

³ *Économiste Français*, 1895, p. 69.

thorough agricultural methods increased the annual output and consequently the export of cereals in a very high degree.¹ This export nearly doubled between 1860 and 1891.

Prospects for the inauguration of the long expected monetary reform were thus apparently much brighter than ever before at the entrance of M. de Witte upon the duties of finance minister in 1893. Furthermore, a curious phenomenon for which many were at a loss to account had been observed. This was the rise in the quotation of the paper ruble above the quotation of the silver ruble, both being compared with gold. In 1892, for the last time, the average yearly quotation of the silver contained in 100 silver rubles stood above 100 rubles in notes. In considering the importance of this fact, it must be borne in mind that a coin circulation no longer existed. Neither gold nor silver could circulate so long as the course of the paper remained below par as measured in either. All metal had, long before this date, left the country or been hoarded by the government, the bank, or private individuals. Consequently the fact that paper had risen in price, apparently permanently, above one of the metals was a fact of prime importance. It implied that Russia could now be provided with a coin circulation without effort or sacrifice on her own part, since many would now be anxious to bring silver to the mints in order to exchange coin for the now more highly valued notes.

The phenomenon, aside from its immediate practical importance, was also full of interest for monetary theorists. Long since it had been observed that there appeared to be little con-

¹ AVERAGE EXPORTATION OF CEREALS FROM RUSSIA BY QUINQUENNIAL PERIODS.

In millions of puds. One million puds = 16,380,500 kg.

1866-70	127.8	1875-79	279.3	1884-88	363.3
1867-71	147.2	1876-80	279.8	1885-89	394.8
1868-72	149.2	1877-81	275.9	1886-90	413.3
1869-73	163.9	1878-82	282.4	1887-91	437.6
1870-74	191.4	1879-83	275.3	1891	389.5
1871-75	193.2	1880-84	267.5	1892	195.3
1872-76	196.2	1881-85	294.0	1893	403.2
1873-77	218.6	1882-86	305.8		
1874-78	256.2	1883-87	322.6		

nection between the price of the notes and that of bar silver or of bar gold, or between their quotation and the varying volume and of the gold reserve set apart to redeem them. It had been commonly supposed that the price of bar silver, coinage of course being free, afforded a maximum limit which could not be overpassed. However, the new developments, due to the steady fall in the price of silver on the world's market, and the not so steady though marked rise in the price of Russian obligations on the bourses of Paris, London, and Berlin, made it apparent that the paper was now quite independent of the price of silver, and that should no silver coinage be allowed it might reasonably be hoped that a gold basis for the currency could be obtained without too great sacrifice. Just how this result was to be obtained will presently be studied more carefully; it is the effect produced by the circumstances just detailed upon governmental legislative action that must be especially noted at this point. It needs only to be recalled that customs duties had now for some time been measured in gold, and that loans had, since 1881, been commonly stated in terms of gold rubles. Both these actions on the part of the authorities indicated a tendency to look to gold rather than to silver as the ultimate monetary standard. As will presently be seen, too, gold rather than silver had usually been coined for account of the government. It surely was not to be expected that the hardly won rise in the quotation of government funds would be suffered to fall into jeopardy for the lack of suitable legislation. It was clear that to allow an influx of silver would mean the withdrawal of paper from circulation so long as its value continued in excess of that of silver; and this process, if long enough continued, would mean the quotation of government obligations in silver when once the standard of the country had been retransferred from paper to silver, so that in this case they would, in addition to their own elements of instability, possess that of being stated in terms of an unstable metal.¹ Such a change would also have resulted in serious

¹ For exposition of this point see *Bulletin de Statistique et de Législation Comparée*, 1893, vol. xxxiv. p. 399. This exposition has been transliterated by HAUPT in *Arbitrages et Parités*, 8th ed., p. 745.

injury to the inhabitants of Central Asia, where Russian paper circulated in large quantities.

The closing of the Indian mints to silver (June 26, 1893) had not been lost upon the Russian administration. Even before the passage of the Sherman Act (1890), silver had sunk below the course of the credit ruble. This, and subsequent heavier imports of silver and increased coinage of that metal, gave fair promise that the experience of France and the Latin Union would be repeated in the case of Russia. There was every reason to expect a heavy deposit of silver at the mint, to be exchanged, when coined, for the very notes which had been exchanged for it some years before. The possibility had been foreseen as early as 1889, but the many impediments to official action had prevented the taking of definite steps. Renewed depreciation of silver at last attracted attention very powerfully to the subject. The attempt to lower the somewhat improved valuation of the Russian ruble and to quote government obligations at a lower figure, which it was believed were being made in more than one quarter, were noted by M. de Witte in his report upon the budget of 1893,¹ and the accumulation of a mass of gold in the hands of the administration as a defense against such aggressions was recommended. It was not, indeed, precisely explained how such a reserve was to be used, but from various references to the existing circulation of notes guaranteed by gold (temporary issues), it was evident that the plan in view was nothing less than to place the whole system of notes upon the same footing as the guaranteed issues, or, in other words, to take the first steps toward a pure gold standard. This would do little toward an effective improvement in the existing status if the threatened invasion of silver were allowed to proceed. The preliminary, therefore, was the prohibition of further coinage of silver and of the acceptance of further deposits of that metal for coinage. This was effected by the ukase of the 16th–28th

¹ *Rapport du Ministre des Finances à S. M. l'Empereur sur le budget de l'empire pour l'exercice, 1893.* St. Petersburg, 1892. Cf. *Bulletin de Statistique, ante cit.*, vol. xxxiii. pp. 218 et seq.

July, 1893,¹ which not only abrogated the right to free coinage of silver but also prohibited the importation of all foreign silver coin whatever into the empire. The sole exception was made in favor of the Chinese *iamb*, which might still be brought in, although only over the continental frontier. The time when the decree was to go into effect might be fixed by the minister of finance, and was in fact set by him at September 13th of the same year.

The rise in the price of the paper to a point above that of silver brought with it, however, or rather intensified, certain difficulties which could not be met by the mere passage of an act against silver. For a long time the Russian paper ruble had been a favorite subject for speculation on foreign bourses, especially on that of Berlin. This was supposed to intensify the fluctuations in its price. It was thought in 1893 that certain operators were making a special effort to depress the quotation of the ruble. In order partially to meet this danger it was determined to levy a tariff upon the export and import of large sums in paper currency. The ukase of the 29th March–10th April, 1893,² consequently provided for the levy of a duty of one copeck (paper) on each 100 rubles or fraction thereof imported or exported over the Russian frontier. The tax thus amounted to .01 of 1 per cent. The new law excited much indignation in many quarters and especially in Berlin.³ This dissatisfaction was intensified when M. de Witte himself entered the speculative market, and through his agents purchased large quantities of paper rubles on the Berlin bourse.⁴ These were shipped to St. Petersburg, and it was even rumored that the export of paper currency from Russia in large quantities would now be prohibited.

More extreme precautions were employed at home. As early as January 1893 the finance minister had notified all credit

¹ For text see *Bulletin de Statistique et de Législation Comparée*, 1893, vol. xxxiv. p. 269.

² For text see *Économiste Français*, Sep. 23, 1893; or *Bulletin Russe des Lois* for April 11.

³ See *Deutsche Oekonomist*, 1893, pp. 216, 260.

⁴ *Ibid.*

institutions operating in Russia that their taking part in foreign speculative operations upon the paper ruble would be considered incompatible with the authorization given these institutions to carry on business. In June 1893 purely speculative dealings were forbidden.¹ Lastly, a reform of the Russian bourses was planned by M. de Witte, the nominal design being that of hindering speculation and improving the course of the ruble.

Whatever may have been the effect of these measures, it is certain that toward the close of 1893 the quotations of the ruble became much steadier, and the tendency to improvement in its price was maintained.² Thus encouraged, M. de Witte steadily pursued the policy he had outlined at the opening of his career, working slowly toward the reformation of the currency through a sound loan system, establishment of a gold reserve, abstinence from new issues (unless guaranteed by gold) and the stimulation of exports and reduction of imports in order to bring about an equilibrium. The next actual step, however, in preparing the way for the gold standard was a negative one. Hitherto, as already stated, the legal monetary unit had been the *silver* ruble,

¹ *Rapport du Ministre des Finances à S. M. l'Empereur sur le budget de l'empire pour l'exercice*, 1894, St. Petersburg, 1893.

² For criticism of the policy see *Die Export*, Berlin, 1893, No. 10, pp. 145-6. But compare following table.

(1 ruble credit (actual exchange)=Mark 2.16. 1 ruble gold=Mark 3.24. 100 francs = 81 Reichsmark.)

AVERAGE ANNUAL QUOTATION OF 100 CREDIT RUBLES IN BERLIN IN REICHSMARKS.

1871	1872	1873	1874	1875
268.21	275.11	271.41	280.95	278.23
1876	1877	1878	1879	1880
262.74	222.58	207.16	204.74	212.16
1881	1882	1883	1884	1885
213.37	204.60	200.84	205.71	204.68
1886	1887	1888	1889	1890
197.77	181.17	189.31	214.39	235.43
1891	1892	1893	1894	1895
224.57	204.93	212.99	219.97	219.73

From *Bulletin Russe de Statistique Financière* after the *Vierteljahrshefte zur Statistique des Deutschen Reichs*.

and although the notes had had a forced circulation, contracts and obligations must be expressed in terms of silver rubles. The confusion arising from the necessity of a constant comparison of the price of the paper with that of the silver ruble and the determination of the value of both silver and paper with reference to gold was extreme and was in the highest degree detrimental to any sort of stability in commercial transactions.

The retention of a fictitious silver basis for the circulation was productive of great inconvenience. It was now proposed to overcome these evils by allowing the statement of all obligations in terms of gold. In accordance with this design a law elaborated by M. de Witte was brought before the Imperial Council. The terms of the law were simple. It permitted the making of all written engagements, authorized by law, in terms of Russian gold. These might ultimately be liquidated either in Russian gold according to the terms of the contract, or in notes at the quotations current on the St. Petersburg bourse. The proposed act in nowise modified the monetary system. It neither altered the basis of the currency, nor did it entail any expense upon the government. The objects of the new measure have just been sketched. In addition, some believed that such a measure would in a degree relieve the regular autumnal stringency and obviate the necessity of constantly relying on an inelastic circulating medium.² The bill met with some opposition. The original draft had contained a clause to the effect that only the so-called "privileged classes" were to be allowed to take advantage of the new provision. Inasmuch as these classes constituted only about 20 per cent. of the population some thought that the greatest benefit would not be obtained from the measure as thus limited. Various other objections were raised, but the bill (with the objectionable clause omitted) became law by the ukase of May 8, 1895,³ and the finance min-

¹For text see *Bulletin de Statistique et de Législation Comparée*, 1895, vol. xxxvii. pp. 670 *et seq.*

²See *Messenger Officiel*, St. Petersburg, April 26–May 7, 1896.

³See for text *Bulletin de Statistique*, *ante cit.*, 1895, vol. xxxvii. pp. 669 *et seq.*, also *Bulletin Russe des Lois*, 1895, No. 80.

ister was further allowed the privilege of making certain taxes and other government dues payable in gold at fixed rates.

These various steps produced a decided effect. After but two years in office, M. de Witte was able to report in the preface to his preliminary budget for 1896 as follows:¹ "By the systematic application of protective measures to the development of national industry the balance of trade, from being unfavorable as it was, has become favorable, and thus one of the essential conditions which assure the duration of the metallic circulation is seen to be created, the commercial exchanges ceasing to be the cause of a constant exportation of coin.

"A considerable stock of gold, representing 61 per cent. of the nominal value of the circulating notes and 91.6 per cent. of their real value, has been gathered. An end has been put to the agiotage on the credit ruble, and this assures to our paper currency firmness and stability. Under the reign of your Imperial Majesty a number of measures looking in this direction have been taken. With the object of facilitating to foreign capital the entrance to the Russian market, the conclusion of engagements in gold money has been authorized. The acceptance of gold by the public treasuries has been decreed, at first for the payment of taxes merely, then for all other payments, and this at rates published by the administration. Now the Bank of Russia and its branches sell and buy gold, they receive deposits of gold, and deliver in exchange receipts payable at sight. Thus the principal means for the re-establishment of the metallic circulation are prepared. . . . This reorganization ought to be effected in such a way as to produce the least shock and to introduce no modification whatever into existing conditions."

It certainly seemed possible that the monetary reform might be expected in the near future. On the 15th-27th December, 1895, the Bank of Russia and treasury together held 684 million rubles in gold. This sum was distributed thus:

¹ *Rapport du Ministre des Finances à S. M. l'Empereur sur le budget de l'empire pour l'exercice 1896*, St. Petersburg, 1895, pp. 22-3.

Treasury,	-	-	-	-	191.7
Bank,	-	-	-	-	43.0
Reserve fund (for redemption),	-	-	-	-	375.0
Reserve for notes temporarily issued,	-	-	-	-	75.0
Total,	-	-	-	-	684.7 ¹

Not a few, however, were doubtful as to whether specie payment could be maintained even if once accomplished.² Many suggestions regarding the exact method of transition to the gold standard were made from various quarters. In an article evidently emanating from official sources³ the principal elements in the reform were stated as follows :

(1) The proposed Russian gold coin shall be struck in 10-ruble pieces, each to contain 1 solotnik 78 doli. The $\frac{1}{10}$ part of this coin, the ruble, divided into 100 copecks, will constitute the monetary unit.

(2) The notes will be guaranteed by the whole resources of the state.

(3) They will be issued by the Bank of Russia in the course of regular business, and no longer for the treasury.

(4) The bank must redeem notes in gold on demand.

(5) The existing reserve fund shall belong to the bank, and the difference between it and the notes in circulation shall be the debt of the treasury to the bank.

(6) The bank shall constantly have on hand one-half the amount of its circulation in gold up to 800 million rubles, and above that sum a full gold equivalent.

(7) Unnecessary notes shall be destroyed as they accumulate.

(8) The issue department of the bank shall be subject to inspection.

(9) Silver coin shall not be a legal tender in sums exceeding 50 rubles except at the public treasuries, where it shall be received in any amount, except in payment for customs.

(10) Until retired the present imperials and half imperials shall be received and redeemed in the proportion of 1 ruble of gold for 1 ruble 50 copecks of paper.

¹ See RAFFALOVICH, *Marché Financier*, 1895-6, p. 315.

² See *e. g.*, *Die Nation*, Berlin, February 15 and 22, 1896.

³ *Bulletin Russe de Statistique Financière*, March-April 1896, pp. 180-1 *et seq.*

This last provision was nothing new. Since January 1896 all public treasuries and all railway offices had received gold at this rate. Even as early as September 1895 the bank had declared that it would receive and buy gold at rates equivalent to those at which that metal was equated with paper in the payment of the *droits d'accise*, *i. e.*, at 7 rubles 40 copecks paper for 5 rubles gold, and when this price did not prove attractive it had been raised (November 25) to 7 rubles 45 copecks, and again, December 25, to 7 rubles 50 copecks paper for 5 rubles in gold.¹

These steps seemed to be quite justified by the course of events. The price of the ruble continued steady and fairly high during the first half of 1896. It was therefore felt by the administration that a decisive step might be taken, and, by the ukase of August 10, 1896,² it was provided that the price of the paper ruble should be fixed, up to December 31, 1897, at 66⅔. Until that date gold 10 and 5 ruble pieces were to be received and paid out by the Bank of Russia and its branches, by the railway companies and by all public treasuries, at the rates of 15 and 7½ rubles in paper respectively. This final measure indicated a degree of confidence which had hardly been expected. Subsequent events, however, appeared amply to justify it.

IV.

We are now in a position to study somewhat more critically the prospects for the success of the new measures whose origin and history have just been traced.

In the first place, some account of the monetary situation as it actually exists in Russia must be given. It will have been inferred from what has already been said that no metallic circulation is in use, and that the country has for many years been performing its business by means of paper. It is true that since the recent edict already mentioned it has been possible to express contracts in gold, and that since the ukase of 1896

¹ See RAFFALOVICH, *Marché Financier*, 1895-6, p. 300.

² For text see *Bulletin Russe de Statistique Financière*, July-August 1896, p. 463.

redemption has practically been established; but the first of these measures had of course no influence on the immediate monetary situation, while the redemption measures have not yet been of long enough standing to render possible a final judgment as to their effects. Conditions are not yet sufficiently stable to admit of the unrestricted use of a metallic currency, and although coinage has all along been considerable,¹ gold, the preponderating part of it, has, at least until very recently, been no more than a merchandise, the coins as soon as struck going into the treasury of the Bank of Russia to be shipped thence to Paris, London, and Berlin in payment of debts. Again, although silver, too, has been coined in considerable quantities, it, no more than gold, has formed part of the actual medium of exchange. What has been coined has been intended either for use in the eastern trade or to serve for the payment of debts specially contracted in terms of silver, and for the payment of which no other medium would suffice. The statement that no coin circulation could possibly have existed needs no explanation when the quotations of the notes and the state of the commercial

¹ COINAGE OF RUSSIA.

Year	Gold	Silver	Year	Gold	Silver
1865.....	20,077,285	6,148,268	1881.....	27,144,051	3,608,024
1866.....	20,069,600	3,356,028	1882.....	19,835,048	1,542,525
1867.....	18,040,070	5,482,608	1883.....	30,407,056	2,377,862
1868.....	17,000,015	4,800,081	1884.....	23,126,038	1,645,012
1869.....	19,929,024	5,300,965	1885.....	26,802,088	1,250,022
1870.....	25,600,040	5,400,011	1886.....	19,126,350	1,590,788
1871.....	4,600,024	6,120,502	1887.....	26,055,035	2,010,509
1872.....	12,300,024	4,500,006	1888.....	26,510,095	1,507,033
1873.....	15,231,024	5,201,009	1889.....	24,430,030	1,494,754
1874.....	24,810,024	4,976,006	1890.....	28,150,090	2,091,763
1875.....	20,300,024	5,100,006	1891.....	2,735,140	3,486,528
1876.....	30,189,040	6,017,011	1892.....		
1877.....	33,150,024	10,147,006	1893.....	3,000,120	3,239,018
1878.....	34,582,048	16,361,263	1894.....	3,000,105	403,007
1879.....	36,125,040	8,354,986	1895.....	50,000,560	5,704,054
1880.....	31,300,056	7,515,268			

1865-1891 from MAYER, *Münzwesen u. Edelmetallproduktion Russlands*, p. 56.

1893-1895 from *Bulletin Russe de Statistique etc.*, July-August 1896, pp. 460 et seq.

TABLE I.¹
(In rubles—,000 omitted.)

	Total note issues	Treasury notes	Metallic stock of bank	Metallic stock of treas.	Notes in bank	Import of gold	Export of gold	Excess of im-ports	Excess of exports
1864	636,500					6,345	16,861		10,516
1865	679,500					8,111	6,649	1,462	
1866	678,000					2,500	14,309		11,809
1867	709,000					6,552	17,054		10,502
1868	691,500					1,721	27,570		225,855
1869	724,400					1,488	101,845		100,357
1870	732,100					9,403	13,592		4,189
1871	757,200					10,249	6,806	3,443	
1872	772,900					7,388	5,322	2,066	
1873	771,000					7,046	25,876		18,830
1874	797,000					5,371	66,925		61,554
1875	797,300					4,489	68,136		63,647
1876	797,300					3,014	19,212		16,198
1877	790,000					2,412	3,034		622
1878	1,039,900					2,489	5,336		2,847
1879	1,188,100					2,401	14,293		11,892
1880	1,162,500					2,191	18,890		16,699
1881	1,133,515	216,000	183,063	108,049	48,464	21,007	35,001		13,994
1882	1,133,515	216,170	179,215	56,418	75,114	2,688	17,451		14,763
1883	1,133,515	216,000	179,215	37,480	73,150	15,801	16,915		1,114
1884	1,103,515	274,700	194,188	30,145	117,869	72,322	616	71,706	
1885	1,073,515	239,997	191,717	81,469	138,879	104,363	232	104,131	
1886	1,046,433	285,000	235,475	75,648	66,490	13,195	172	13,023	
1887	1,046,433	240,000	240,597	40,949	122,214				
1888	1,046,295	240,000	237,119	36,634	124,400				
1889	1,046,295	240,000	250,058	47,052					
1890	1,046,295	222,000	278,325	94,061					
1891	1,046,295	216,000	354,877	128,940					
1892	1,121,295	216,000	401,732	93,454					
1893	1,106,295	216,000	487,045	94,505					
1894	1,196,300	216,000	389,351	209,224					

¹ Figures taken from *Bulletin Russe de Statistique Financière*, 1894, pp. 400-401, etc.

balance—already so often mentioned—are considered. The unfavorable commercial balance prior to 1887 implied a similar excess of exports over imports of the precious metals. Until 1892 gold exports were nearly always in excess of gold imports.

Latterly this condition has been reversed, thanks partly to the improved balance of general trade, and partly to the slow increase in the amount of gold annually produced by Russia.¹ Had it not been for the large quantities of gold yielded by Russian and Siberian mines the difficulty of obtaining a stock of the metal might have been much greater. The stock of coin has been chiefly composed of the reserves of the Bank of Russia and of the treasury (both of which have, until recently, been very variable in amount) and of such small quantities as were to be found in other credit institutions. To these, of course, must be added whatever sums have been hoarded by the population at large. These, however, cannot have been great and are, in any event, quite beyond the reach of estimate.

The circulation, by which the actual work of exchange has been performed, has thus consisted almost exclusively of paper which, as already seen, has, since 1881, nominally amounted to more than 700 millions of rubles, but really to about 1100 millions. To these are sometimes erroneously added the temporary note issues of 1892, etc., which are equivalent to gold because guaranteed by a reserve of equal amount as well as the so-called *Schatzamt Scheine* or treasury notes (see Table I). These latter

¹ From *Bulletin Russe de Statistique Financière et de Législation*, No 1, January 1896, p. 83.

PRODUCTION OF GOLD IN RUSSIA.

1 pud = 40 Russian pounds = 16.3805 kg.

1885	1954 puds	1890	2288 puds
1886	1938 “	1891	2267 “
1887	2033 “	1892	2506 “
1888	2160 “	1893	2601 “
1889	2167 “	1894	2478 “

Note.—To these figures may be added the production of the imperial domain which was as follows (1883–1894), in puds: 101, 91, 61, 103, 95, 86, 106, 114, x, x, 133¼, 139½. Russia furnishes in all about one-sixth of the world's production of gold and about one-five-hundredth of its production of silver.

are nominally redeemed each year, but the operation is a mere farce, being effected by the issue of new notes in place of the old ones. Russia may thus be said to have been doing business during recent years on an inelastic note issue consisting of less than 1100 millions of rubles, the guaranteed notes being equivalent to gold, and hence not circulating freely.

Leaving quite out of account for the present the fact of depreciation and its various results, the disadvantages of a note issue like that just described are familiar, especially in the United States. The Russian paper currency has presented some analogies to our own greenback circulation. The disadvantages of a note issue which can neither be increased nor decreased as occasion demands are sufficiently well known to require little attention. The same periods of stringency and lack of adequate note circulation which have been repeatedly witnessed in the United States have been observed under similar circumstances in Russia. Many features of the general industrial and economic situation have been analogous. In both cases the existence of large grain-growing areas, widely separated but producing crops demanding large capital for their reaping and transportation at particular seasons of the year, has led to temporary constriction and temporary redundancy. An inadequate credit system, unfamiliarity with the use of credit instruments, and a lack of metallic money have vastly intensified the general discomforts and inconveniences of the Russian situation. Moreover, it seems to have been overlooked that, despite the depreciation, and perhaps partly in consequence of it, the circulation does not seem to be, as is commonly supposed, redundant. Looking merely at the actual volume of notes in circulation, equal nominally to about 880 million dollars, but in actual value to about two-thirds that amount, it is seen that the circulation can hardly be considered excessive. Both the United States and Germany have in circulation a volume of notes about 1.5 times as great as that maintained by Russia. France has three times as many. Austria-Hungary has an amount more than four-fifths as great. In short, the situation of Russia has been that

of a country possessing little or no coin or bullion, no metallic circulation, poor credit facilities, and a note issue inelastic, fluctuating in value, and usually inadequate.

Again, in studying the present outlook for the success of the new monetary reform it is necessary to note some facts which, although often neglected, are of prime importance in forming an opinion. If the notes are, as just maintained, not redundant, but rather the reverse, why have they so long been at a discount? If the value of a paper currency is governed solely by the *volume* of that currency issued as compared with "monetary needs," why have the Russian notes not stood above par as compared with gold in a country where metal is lacking, credit and credit instruments unfamiliar, "monetary needs" (if measured by the advance in trade and industry) increasing, but where the volume of notes has in recent years been scanty and inelastic? Further, the curious fact already noted that notes themselves redeemable in silver rose above the market value of the silver contained in the silver coins in which they were presumably redeemable, even while coinage was free, demands explanation. A brief examination of the causes of these phenomena will materially assist a study of the contemporary conditions.

In recalling the history of the notes, and of the reserve fund supposed to be devoted to their redemption, the most important fact to be observed is that there appears to be little or no correspondence between their volume and their quotation, or between the latter and the amount of the reserve.

In the year 1858, before the bank reform, paper was quoted at 36 pence, and the volume of notes amounted to 730 millions of rubles. The coin circulation had greatly decreased, but silver rubles and 50-copeck pieces might still be found in the country districts, especially in the eastern provinces.¹ In 1862 the finance ministry found, with a quotation of about 35 pence, a reserve of 98 millions and a circulation of about 713 millions, the note circulation so nearly correspondent to the normal needs of the country that the redemption of the notes was thought of. This opera-

¹ *Russische Revue*, St. Petersburg, 1879, Bd. xiv. pp. 415 *et seq.*

tion was begun in 1862. It set out with a quotation of $34\frac{5}{8}$ (pence) and an issue of 713 millions. At the end of one and one-half years the notes had been reduced to 636 millions, the reserve fund from 97 to 68 millions, and the quotation instead of rising had fallen to $34\frac{1}{2}$. The operation of purchasing gold begun in August 1868 raised the redemption fund in July 1875 to 229, and the volume of notes in circulation to 797 millions, while the average quotation remained in the neighborhood of 33. Another redemption operation undertaken in 1875 resulted in decreasing the quantity of notes to 635 millions (July 1, 1876), the redemption fund to 175 millions, and at the same time the quotation fell off to $31\frac{1}{2}$. It would be idle to explain either of these variations by referring it to the others. During all this period no excess in the volume of money had been observed. It was not unusual to see payments in Moscow effected with coupons which would not fall due before the following year. Workmen were sometimes paid in a sort of time checks stamped on leather.¹

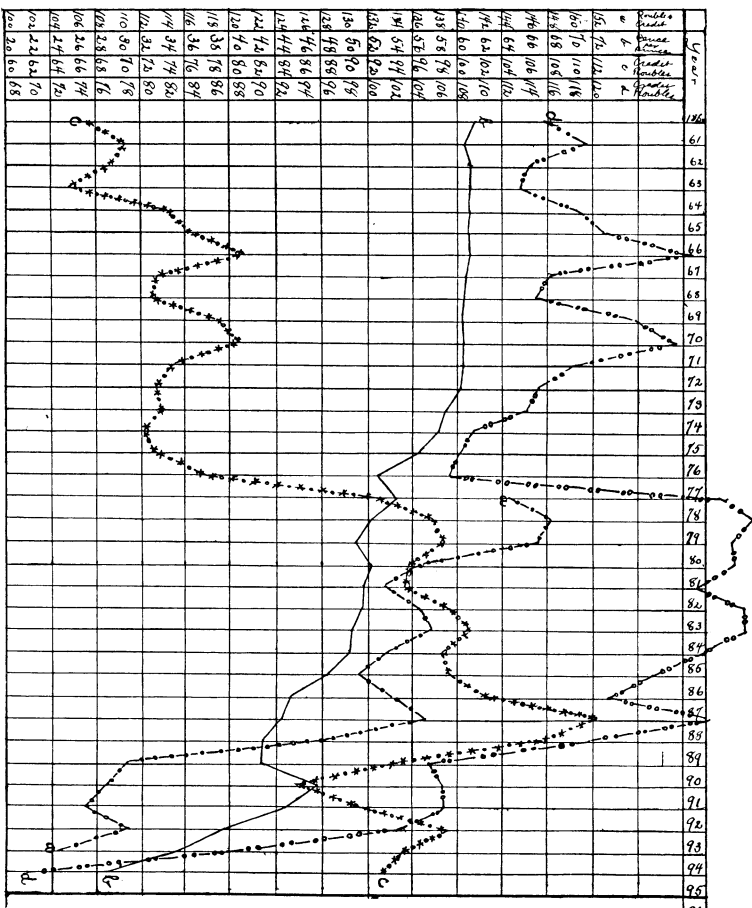
Much the same lack of causal connection between these three sets of circumstances may be observed during the period lasting from the reform measures of 1881 to the cessation of the deficit in 1887.² It was shortly after the latter date that attention was called to the evident lack of relation between the price of the ruble (paper) and the silver contained in a silver ruble. These variations introduced new elements of difficulty into the study of a situation already complicated. This new feature of the market may be best studied by the graphic method, whereby the less comprehensible quotations may be presented in a form readily comparable with the statistics for the stock of metal, circulation of notes, etc., already given.³ The data for the chart are found in the accompanying table.

The lines on the chart represent (*a*) the average price of 100 silver rubles in St. Petersburg; (*b*) the average value of silver in pence per ounce; (*c*) the equivalence of the sum of £10 expressed in Russian notes according to its value in exchange

¹ *Russische Revue*, St. Petersburg, 1879, Bd. xvi. p. 420.

² See Table I.

³ Table I.



Column A - average price of 100 silver dollars in the London market (measured in cents).
 " B - average price of silver in the London market.
 " C - average price of 100 silver dollars in the London market.
 " D - average price of 100 silver dollars in the London market.

TABLE II.¹

Year	1 Average price of silver in pence per oz.	2 Equivalence of £10 in notes London-St. P. quotation	3 Average value in notes of the silver contained in 100 silver rubles	4 Average value in notes of 100 silver rubles at St. Petersburg	5 Average quotation of 1 ruble gold in notes	6 Average quotation of 1 ruble in notes, in gold	7 Average quotation of 1 ruble in silver, in notes	8 Average quotation of the $\frac{1}{2}$ imperial
1860	61.68	67.15	107.96					
1861	60.81	70.42	111.61					
1862	61.43	69.12	106.51					
1863	61.19	65.68	105.81					
1864	61.19	74.09	118.51					
1865	61.06	76.05	121.03					
1866	61.13	80.99	129.02					
1867	60.56	73.66	116.27					
1868	60.50	73.01	115.12					
1869	60.43	78.66	123.90					
1870	60.56	80.67	127.33					
1871	60.56	74.93	118.27					
1872	60.25	73.35	115.18					
1873	59.25	73.98	114.24					
1874	58.31	72.05	109.50					
1875	56.75	73.24	108.33					
1876	53.05	77.82	107.55					
1877	54.71	92.30	131.19	144.40	1.48	.67	1.44	7.64
1878	52.55	97.96	134.16	148.14	1.55	.65	1.48	7.97
1879	51.32	98.97	132.38	147.33	1.58	.63	1.47	8.16
1880	52.21	95.73	132.62	136.73	1.55	.64	1.37	8.00
1881	51.83	95.28	129.12	133.44	1.52	.66	1.33	7.84
1882	51.72	99.21	133.73	136.58	1.58	.63	1.37	8.16
1883	50.75	101.18	133.83	137.80	1.62	.62	1.38	8.33
1884	50.63	98.46	129.92	133.78	1.58	.63	1.34	8.12
1885	48.48	99.21	125.35	131.32	1.58	.63	1.31	8.13
1886	45.34	102.74	121.41	126.51	1.65	.61	1.27	8.49
1887	44.61	112.15	130.39	137.10	1.80	.56	1.37	8.08
1888	42.71	107.49	119.65	127.68	1.68	.59	1.28	8.41
1889	42.64	94.57	105.10	110.67	1.52	.66	1.11	7.59
1890	47.71	85.82	106.71	109.08	1.38	.73	1.09	6.89
1891	44.93	91.25	106.85	107.06	1.50	.67	1.07	7.49
1892	39.58	99.07	102.20	110.82	1.59	.63	1.11	7.93
1893	35.33	95.22	87.68	104.38	1.53	.65	1.04	7.66
1894	28.80	93.02	69.82		1.48	.67		7.46

St. Petersburg, London, and (*d*) the average price (in notes) of the bullion actually contained in 100 full-weight silver rubles. The line *bb* thus gives the norm for the whole chart, inasmuch as it represents the value in gold of a definite quantity (1 ounce)

¹ Figures taken from *Bulletin Russe de Statistique Financière*, St. Petersburg, 1894, pp. 134, 456, 520, etc.

of silver bullion ; *cc* and *dd* give the course of definite quantities of gold and silver expressed in terms of notes, inasmuch as, coinage being free in England, the exchange value of £10 may be regarded as that of a definite quantity of gold bullion on foreign markets. That is to say, *cc* expresses the variations in the quantity of notes required to import £10 into Russia. The foreign value of the credit ruble as a *government obligation* is thus given. The line *aa* renders possible a comparison between fluctuations in the value of the silver ruble as a coin with those in its bullion value. The former of these naturally follow the latter at a slight distance in point of time, the fluctuations thus falling upon the chart somewhat later.

There are several points to be especially noticed in considering this chart. A comparison of the line representing the value of the credit ruble with the course of the figures already given in Table I illustrates the statement already made that no connection between the price of the paper and the volume of the notes in circulation or the height of the gold reserve is traceable. Secondly, there is evidently no correspondence between the course of the line *cc* and the other lines on the chart. While variations in *aa*, *bb*, and *dd* by no means coincide or are contemporaneous, these three lines at least preserve the same direction, although their movements are not identical. The line *cc*, it will be remembered, represents what may be considered the real or true value of the Russian paper, *i. e.*, its actual exchange value upon the principal market of the world as governed by the real influences affecting that value as measured in gold, the world's medium of exchange, and unaffected by factitious circumstances. Its only apparent correspondence to the other lines occurs at particular points when influences depressing to Russian credit happened to coincide with circumstances tending likewise to push the other lines downward. There is still another point of particular interest to be noted. The lines *cc* and *dd* are seen to move at first convergently ; later divergently. The line representing the value of silver as expressed in notes falls. This rise in the price of a paper obligation above the course of the metal

in which it was quoted, although in itself a curious phenomenon, is only an interesting additional proof of the fact that a government obligation, whether a note or not, depends for its value far more on general public credit than upon the existence of some fund supposed to be devoted to its liquidation. A similar case occurred in Austria where likewise the government notes, though nominally redeemable in silver, rose along with other obligations above par (in silver) when it became clear that an honest redemption policy was intended. In either case the phenomenon, though peculiar, is simple and is probably to be observed only when a paper currency has become so firmly established in the habit that it becomes dissociated in the public mind from the mere metallic currency.

It would be quite supererogatory to enter upon a discussion of the principles of paper money in a purely descriptive study. Before proceeding, then, to consider the immediate outlook it needs only to be recalled once more that in the case of Russia, as in that of all other nations, the value of fiduciary currency depends not upon its *volume* but upon the estimate placed by the public upon its future worth. This, although merely stating the problem of its value in other terms, tells us at once where to look for the ultimate elements. It is clear that the price of public obligations depends upon a variety of influences—political, economic, industrial, and, incidentally, administrative. Of these the first category may be eliminated, since it is only through their effect upon the economic situation that politics will be effective. The prospect of success, then, in maintaining a high quotation of the notes and so making effective the steps already taken toward their redemption must be judged primarily by the general economic and fiscal outlook. In this must be considered the balance of foreign trade, the immediate prospects of production and exportation¹ of commodities, as well as the probability of being able to maintain an adequate reserve without excessive sacrifice.

These considerations are of too great extent to receive detailed attention here. We have already pointed out the

¹ Compare *Deutsche Oekonomist*, Berlin, 1896, p. 253.

growth of the Russian trade in cereals and the fact that the improved condition of the finances warrants the hope of a continuance of favorable fiscal conditions. Exports and growth of cereals are rapidly increasing of late, and the new industrial strength, although less marked than the advance in agriculture, is steady.¹ A consideration of the general commercial balance of trade for the past three years, prior to 1896, shows a state of things highly favorable to the success of the new measures.

The same must be said, if we compare the amounts realized upon government loans during recent years.² The rise in the price

¹ TOTAL EXPORTS AND IMPORTS OF RUSSIA, 1893-1895.

(In credit rubles —,000 omitted.)

Exports				Imports		
	1895	1894	1893	1895	1894	1893
Food stuffs.....	385,647	428,437	332,390	67,652	66,197	72,985
Raw materials.....	260,044	201,674	226,149	282,373	314,164	259,027
Animals	15,138	12,179	12,777	2,883	2,734	1,337
Manufactures	30,201	21,966	23,352	136,493	131,841	88,607
Total.....	691,030	664,256	594,668	489,401	515,236	421,956
Gold and silver (coin and bars)..	42	37,446	64	36,561	130,396	28,745

² AMOUNTS REALIZED UPON GOVERNMENT LOANS.

Metallic loans negotiated Dec. 1, 1888 to Dec. 31, 1895 (Proceeds devoted to department of state loans)	Nominal value of loans (in rubles)	Net amount credited to the treasury by the syndicates of issue (in rubles)
Consol railway loan, 1st and 2d series.....	1,941,992,000	1,711,945,390
4 per cent. loan of 1889, 2d issue.....	500,000,000	417,588,561
4 " gold loan of 1890, 2d issue.....	360,000,000	327,657,471
4 " gold loan of 1890, 3d issue.....	300,000,000	273,132,600
4 " railway loan, 3d series.....	320,000,000	304,821,025
3 " gold loan of 1891.....	500,000,000	383,982,857
4 " gold loan of 1893, 5th issue.....	168,254,175	168,254,175
3½ " gold loan of 1894.....	400,000,000	368,694,057
4 " gold loan of 1890,* 4th issue.....	41,764,000	39,258,151

*See MOVS, *Finanzen Russlands*, p. 8 (Berlin, 1896).

of government securities shown by the figures is quite noteworthy and justifies the expectation of a further rise in the price of the paper should it be decided to redeem at a figure higher than that which has now been fixed. Refunding has been a principal feature of recent Russian finance¹ and its results have been highly satisfactory.

After this summary of the remoter aspects of the situation, we may make a brief survey of the conditions immediately obtaining in the treasury and bank. For this, the latest authentic information available seems to be that found in the last report of M. de Witte² on the preliminary budget of 1897. According to this document, the situation may be stated as follows :

Date	Note issue	Gold reserve, 1 ruble gold=1½ rubles credit	Per cent. of gold reserve to note issue	Reserve fund, 1 ruble gold=1¼ rubles credit	Per cent. of re- serve fund to note issue
Jan. 1, 1887	1046.5	441.6	42.2	253.5	24.4
Aug. 30, 1892	1171.3	905.5	77.3	503.1	42.9
Dec. 8, 1896	1121.3	1199.2	106.9	750.0	66.9

The early history of the gold reserve has been recapitulated at another point. It was increased under Wiesnygradsky (January 1, 1887–August 30, 1892) by 309 millions. M. de Witte added 200 millions gold before December 16, 1896. The sources of the accumulation require no discussion. As already seen, a surplus existed under Wiesnygradsky. During the last year a gold loan whose product was 100 millions was used for the reimbursement to the bank of a part of the non-interest-bearing debt of the treasury. The collection of gold, however, has not disturbed foreign markets. In 1890 the bank was able to offer its assistance to the Bank of England to the extent of 1.5 million pounds, so that the reverse has been true. During the past year the redemption of notes and deposit of gold have been nearly equal, there being a difference of but 25 millions—which are said to

¹ Cf. *Le Rentier*, Paris, January 27, 1897.

² *Rapport du Ministre des Finances*, etc., ante cit. Number for December 1896.

be now in circulation.¹ During 1895 and 1896 175 million francs of silver have been purchased by Russia, and of this 43 millions have been coined and put into circulation.

From whatever point of view we examine the reform, then, it seems to rest upon a sound basis. Economic and fiscal prospects seem favorable, the stock of gold already accumulated is at least not inadequate, although only in part specifically devoted to securing the notes.² Judged by any fair standard, this, the latest of the great monetary operations of recent years, seems to have been conducted in a creditable manner and to hold out good hopes of success.

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BERLIN.

¹ *Rapport du Ministre des Finances*, etc., *ante cit.*, number for December 1896; or see for the same document, *St. Petersburger Zeitung, Beiblatt I*, January 1-13, 1897, pp. 171-3.

² But for some adverse criticism see *London Economist*, January 16, 1897, p. 76, etc.